








CCTV CONTROL KEYBOARD

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## Features

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- ☐ Support CCTV system control.
- ☐ Control Dome Camera and P/T/Z Receivers with RS-485 Interface.
- ☐ Supports up to a total of 127 devices (127 Dome Camera or P/T/Z Receiver.)
- ☐ The 3-axis joystick supports Pan/Tilt control and Auto Focus function.

## Specification

<b>Power</b>	DC 12V		
<b>Power Consumption</b>	2W		
<b>Control signal</b>	RS-485 Standard 9600 Baud Rate		
<b>Control Device</b>	127 Devices		
<b>Pan/Tilt Control</b>	Manual	Pan	Right / Left
		Tilt	Up / Down
	Auto	Pan	On / Off
		Sequence	On / Off
<b>Lens Control</b>	ZOOM		Tele / Wide
	FOCUS		Near / Far / Auto
	BRIGHTNESS		+ / -
<b>Camera Control</b>	Preset Point		128
	Camera Setup		Available
<b>Dimension</b>	296x190.4x52.7mm ( W x D x H )		
<b>O.P Temperature</b>	0~45℃		
<b>Weight</b>	1.4 Kg		

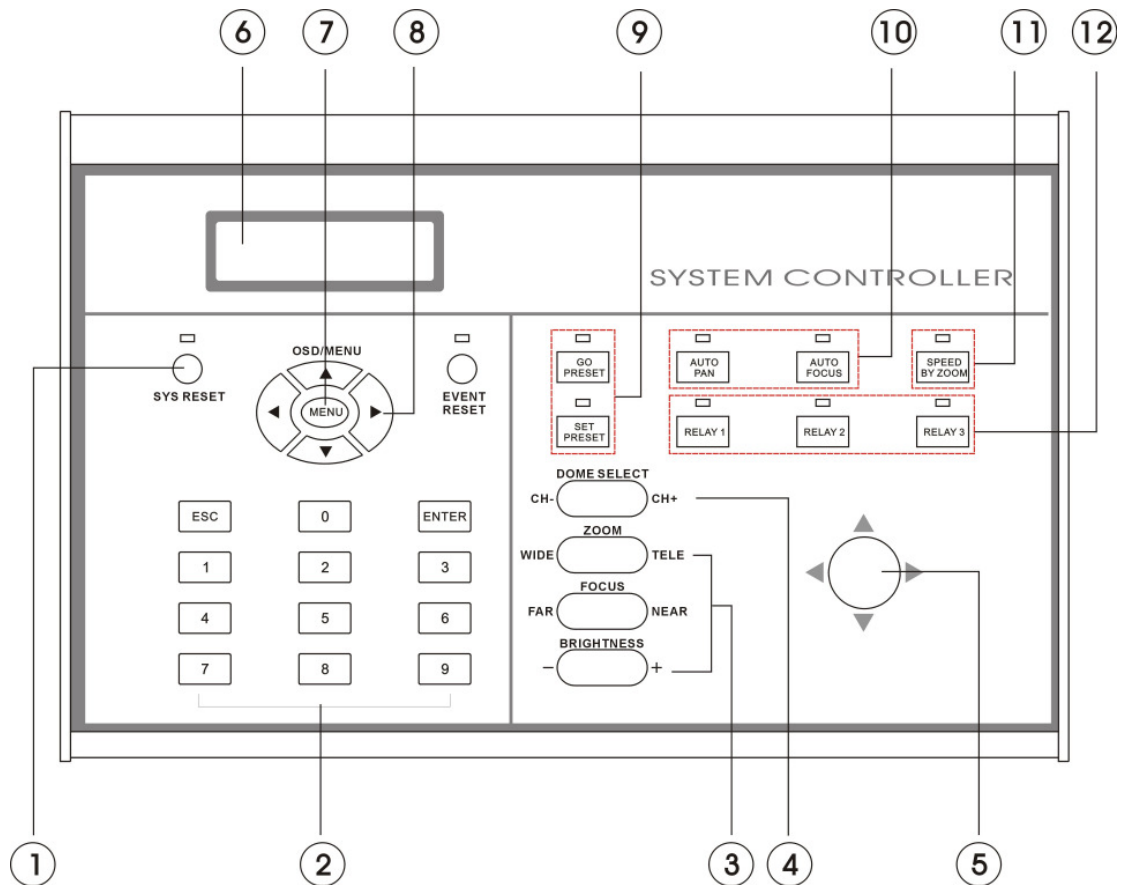
## Symbol Description

- Function keys are shown by, framed capital boldface print letters.  
Example: **ENTER**, **AUTO FOCUS**, etc.
- Function key “+” indicates the order sequence.  
Example: **2** **8** + **ENTER** meaning, press the function key “**2**”, “**8**”, and then **ENTER**.
- DEVICE 001: \_

; indicate messages from the device and is shown on the control keyboard LCD display.
- “n” indicates the ID number of the nth device (ID numbers ranges from 001~127).

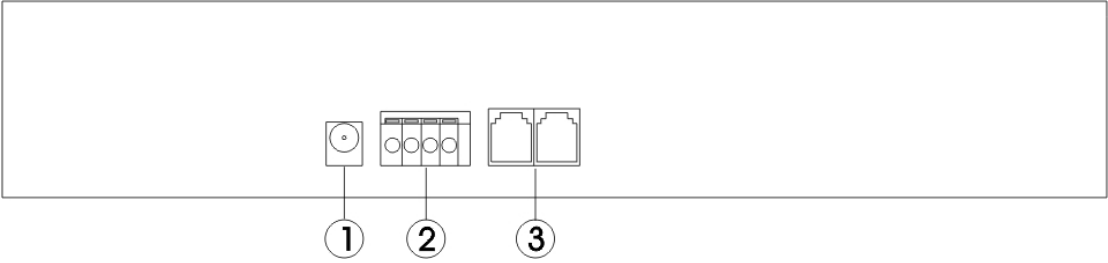
## Front and Back Panel Description

### ► Front Panel



- ① System Reset
- ② ESC, ENTER and Number Key
- ③ Lens Control Key
- ④ Device Select Key
- ⑤ Joystick
- ⑥ LCD Panel
- ⑦ OSD Function Key
- ⑧ OSD / LCD Function Keys
- ⑨ Preset Key (Preset setup or run preset position)
- ⑩ Auto Key (Auto-Pan and Auto-Focus)
- ⑪ Speed By Zoom Key (Auto speed adjustment with multiple zoom function)
- ⑫ External Relay Control Key

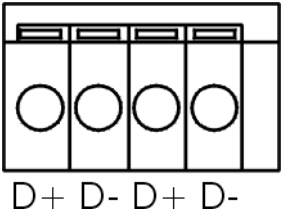
► Back Panel



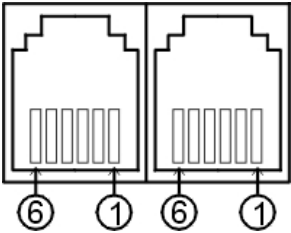
① Power in connector ( DC 12V )



② RS-485 connector



③ RS-485 RJ-11 connector



Pin No.	Definition
1	-
2	-
3	-
4	D+
5	D-
6	-

## System Installation

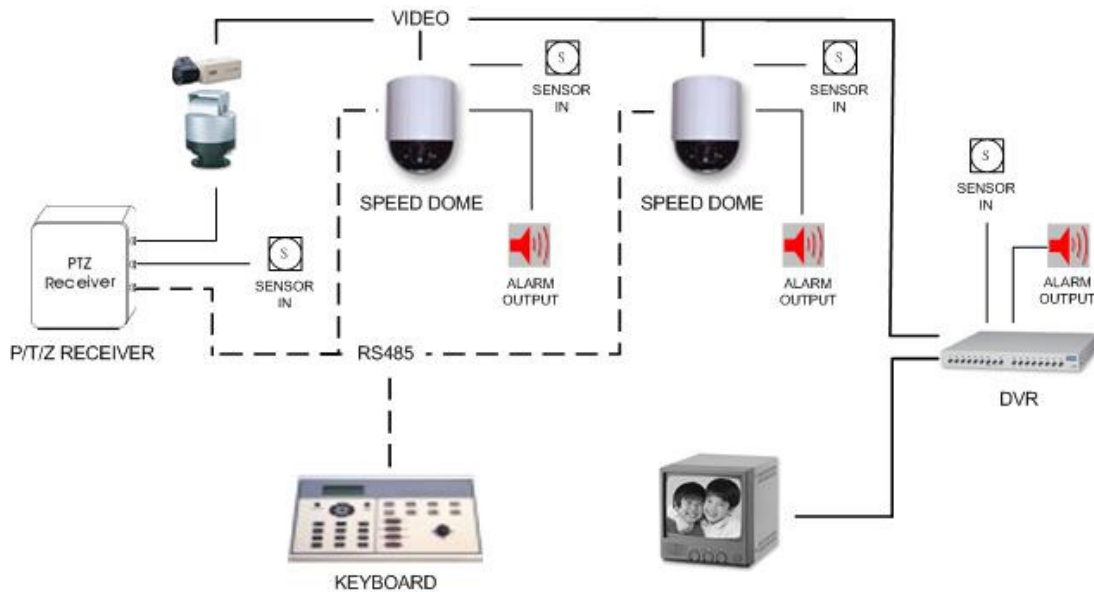
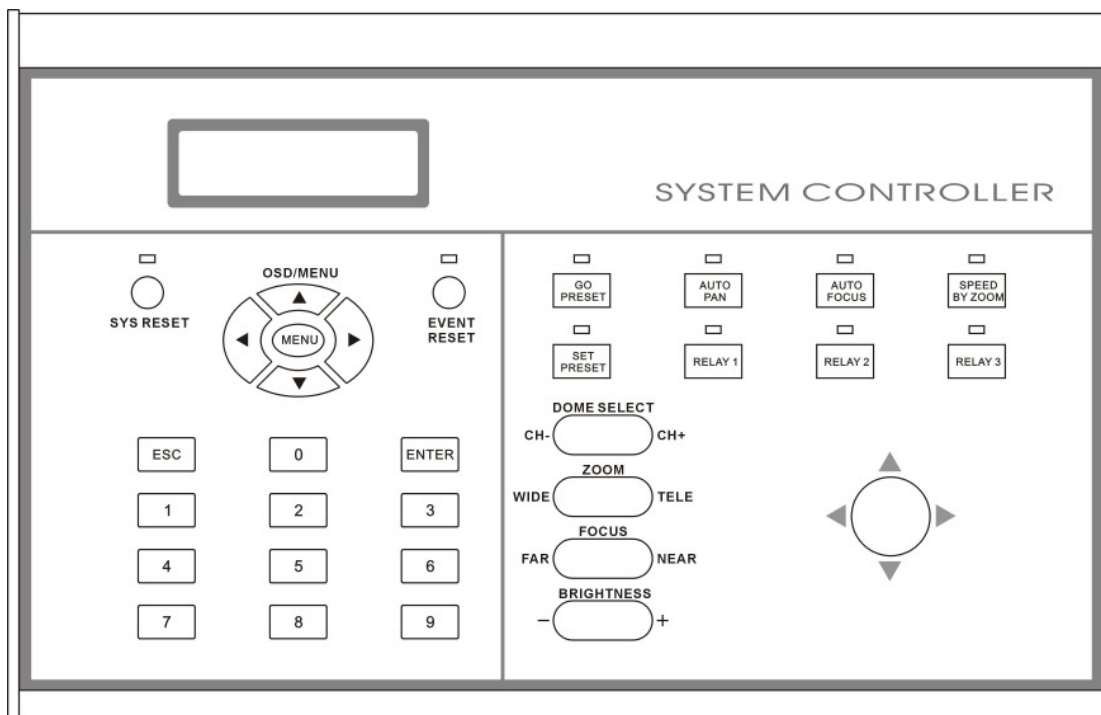


Fig 1.1

The system supports connections of numerous Speed Dome Cameras or P/T/Z Receivers, assigning a set ID (Note! ID numbers ranges from 1~127 and may not be repeated) for setup and control, through control keyboard (Ref. Fig 1.1).

### ► Connecting RS-485

Connect RS-485 terminal D+ from the control keyboard to terminal D+ of RS-485 DATA IN connector from the device; then connect RS-485 terminal D- (the same set of terminal) to the terminal D- of RS-485 DATA IN connector from the device.



### System Reset

After connecting all necessary cables, startup the system linking by pressing **SYS RESET** key. The LCD displays the following message:

**SYSTEM LINKING?** (the LED starts flashing).

Press **SYS RESET** key again, the system linking will start, search the system connection device and make sure that all the connected devices are probably linked.

\* When the LCD displays the following message: **DEVICE: XXX LOST PRESS SYS RESET**, it means that an error has been occurred. Please press **SYS RESET** key, after checking and sorting the circuit.

## **Manual Control (Up / Down / Left / Right / Speed)**

Speed Dome Cameras or P/T/Z Receivers may be controlled manually, by using the joystick (Up / Down / Left / Right / Speed).

### ► Joystick

The movement depends on the angel of the joystick:

Push the joystick up or down, the device will move forward or backward.

Push the joystick left or right, the device moves leftward or rightward.

### ► Zoom Speed Setup

The LED lights up after pressing **SPEED BY ZOOM** key.

Then, the Pan / Tilt movement of the Dome will be proportional to each ratio.

**\* Movement slows down when zooming.**

## **Device Select Key**

### ► Use the number key + **ENTER** key

Pre-select the desired nth device, by pressing the number and

**ENTER** Key on the controller keyboard. Then, the LCD will display ID of the device.

### ► Use the **DOME SELECT KEY** function of control keyboard.

DOME SELECT Key

**DOME SELECT ( **CH+** )** the system automatically selects for the ID number larger than the present ID number.

**DOME SELECT ( **CH-** )** the system automatically selects for the ID number smaller than the present ID number.

**\* After completing the change, the LCD will reflect the selected device ID and when the action was failed or the selected device did not exist, no changes will be shown by the LCD, it remains as original status.**

## **Zoom Control**

This item allows you to change the zoom ration from OFF to 220X (22 times optical magnify).

### ► Lens Control-Zoom TELE

Press **ZOOM TELE** key, to narrow the angle of viewing and release the key to stop zooming.

### ► Lens Control-Zoom WIDE

Press **ZOOM WIDE** key, to widen the angle of viewing and release the key to stop zooming.

## **Focus Control**

Focus Control may be done by AUTO or manually by the user.

### ► Manual Control- Focus Far

Press **FOCUS FAR** key, to focus far and release the key to stop focusing.

### ► Manual Control- Focus Near

Press **FOCUS NEAR** key, to focus near and release the key to stop focusing.

### ► Auto Focus Control

Press **AUTO FOCUS** key or the joystick, the LED of the **AUTO FOCUS** lights up and press **AUTO FOCUS** key again, to disable the function.

\* **FOCUS FAR** and **FOCUS NEAR** will not function, when **AUTO FOCUS** function has been started.

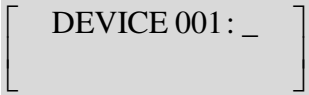
## Setting the Preset Points

Setting the preset point enables the Speed Dome Camera to have preset points from 1~128. You may key in a number (1~128) and press

**SET PRESET** key, to store current position as preset. You may also key in a number and run the preset point that you've just stored.

### □ Selecting a Speed Dome Camera

Press **1** key and the **ENTER** key, the LCD will display:

, it means that Speed Dome number "1" has been selected.

Example: Select the 1<sup>st</sup> Speed dome Camera = **1** + **ENTER**

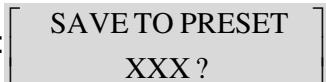
Select the 127<sup>th</sup> Speed dome Camera = **1** **2** **7** + **ENTER**


### □ Controlling the Joystick

The joystick may move the Speed Dome to that specific location.

### □ Controlling the zoom ratio from 1X to 220X (22 times optical).

It is suggested when setting the preset points to manually adjust the iris, to enable clarity and stability of the focal distance.


□ Key in a number (1~128) and press **SET PRESET** key, the LCD will display: , then press again **SET PRESET** key,





and when the display show: , meaning that the setup has been completed.

**\* Repeat the steps 1~4 again, to set more preset points.**

## Call upon the Preset Points

When the setup of the preset point has been completed, it may be called upon.

► Enter the assigned preset number and press **GO PRESET** key, the LCD will display: , and the Speed Dome will move to that specific preset point.

Example: 1<sup>st</sup> preset point =  + **GO PRESET**  
128<sup>th</sup> preset point =    + **GO PRESET**

## Change the Preset Point


To change the preset point, use the joystick to move the cursor to the preset point setup selection and change to your desired settings.

## AUTO PAN


The function has numerous groups (every group has numerous setting points) and you have to decide the pan direction and the pan speed for each point.

### ► Start-up Auto Pan Mode

Under Control Mode (assume device=1), when the LCD displays:

, key in the group number to be setup (Assume

group=1, then enter 1), then press **AUTO PAN** key, the LED of the **AUTO**

**PAN** lights up, LCD displays , meaning that the setup has been completed.

### ► Stop Auto Pan Mode

Press **AUTO PAN** key or move joystick, the LED of the **AUTO PAN** goes off, meaning that the function has been disabled (Please refer to P.8).

### ► About Auto Pan Mode

When Auto Pan Mode has been started, no other operations will function. Unless, when Auto Pan Mode has been disabled.

## Relay Control

Three sets of relay control are provided: RELAY1, RELAY2 and RELAY3, (when using P/T/Z Receiver.)

### ► Relay ON

The RELAY1 LED lights up when **RELAY1** key has been pressed. That means RELAY1 is set ON and the output has been connected (close status).

### ► Relay OFF

The RELAY1 LED will not light up when **RELAY1** key has been pressed. That means RELAY1 is set OFF and the output has been disconnected (open status).

## Alarm Management

### ► Alarm Input

The Speed Dome Camera is equipped with six alarm input connectors, Alarm 1~Alarm 6, corresponds to both preset points and AUTO PAN Group. Once the alarm signal is detected, the Speed Dome Camera will automatically move to the preset point or Start-up AUTO PAN.

► Alarm Management of P/T/Z Receiver or devices, please refer to the relevant guide.

### ► Alarm Mode Management

The Speed Dome Camera is set to lock on the last alarm input. Thus, once the alarm signal is detected, the Speed Dome Camera will automatically move to the preset point or Start-up AUTO PAN, triggering the alarm to buzz, **EVENT RESET** LED will be lighted and the LCD will display:

DEVICE:XXX
ALARM INPUT

, informing the user that an alarm event has been detected.

The buzzer does not dismiss automatically, the user has to press the **EVENT RESET** key in order to stop the buzzer. When the alarm of more than one device has been triggered continuously, than the system select to lock on controlling the last device triggered by alarm event.

- When the alarm of the Speed Dome Camera has been triggered under Auto Pan ON mode, the Speed Dome Camera will rotate in 300° per second to the preset correspondent point (AUTO PAN Group). When the alarm of more than one device has been triggered continuously, than the system select to lock on controlling the last device triggered by alarm event.
- When the alarm of the Speed Dome Camera has been triggered under Auto Pan OFF mode, the Speed Dome Camera will rotate in 300° per second to the preset correspondent point (AUTO PAN Group).

## Simple Operational Reference Table

Functions		Method of Operation
Restart System Connection		<b>SYS RESET</b> (SYS RESET LED ON)
P/T/Z Control	Upward rotation	Push the joystick forward
	Downward rotation	Push the joystick backward
	Leftward rotation	Push the joystick leftward
	Rightward rotation	Push the joystick rightward
Select Dome Camera		No. Key+ <b>ENTER</b> or <b>CH+</b> , <b>CH-</b>
Lens Control		<b>ZOOM TELE</b> or <b>ZOOM WIDE</b>
Manual Control		<b>FOCUS FAR</b> (AUTO FOCUS LED OFF)
		<b>FOCUS NEAR</b> (AUTO FOCUS LED OFF)
Auto Focus		<b>AUTO FOCUS</b> (AUTO FOCUS LED ON)
Speed By Zoom		<b>SPEED BY ZOOM</b> (SPEED BY ZOOM LED ON)
Brightness Control		<b>BRIGHTNESS +</b> or <b>BRIGHTNESS -</b>
Chose to Select the Preset Points		No. Key + <b>GO PRESET</b> (128 Preset Points)
Start-up the Preset Mode		No. Key (Group No.)+ <b>AUTO PAN</b> (AUTO PAN LED ON)
Stop the Preset Mode		<b>AUTO PAN</b> or Push the joystick (AUTO PAN LED OFF)
Disable the Alarm		<b>EVENT RESET</b> (EVENT RESET LED OFF)
Relay Switch		<b>RELAY1</b> <b>RELAY2</b> <b>RELAY3</b> (LED light ON meaning LED ON and vise versa.)



## **Accessories**

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1. Power Adaptor (DC 12V)
2. User's Manual